

PENDING CLAIMS

1. **(Withdrawn)** A method for identifying a test agent as reducing the level of differentiation of T cells into Th1 cells comprising reducing MEKK1 catalytic activity in said T cells.
2. **(Withdrawn)** The method of Claim 1, wherein reducing of said MEKK1 catalytic activity comprises increasing the level of differentiation of said T cells into Th2 cells.
3. **(Withdrawn)** The method of Claim 1, wherein the reducing of said MEKK1 catalytic activity comprises increasing the level of one or more Th2 cell cytokine that is produced by said T cells.
4. **(Withdrawn)** The method of Claim 3, wherein the increased level of said Th2 cytokine occurs in the absence of an increase in the level of one or more Th1 cytokine.
5. **(Withdrawn)** The method of Claim 4, wherein said Th1 cytokine is chosen from one or more of interferon-gamma and Interleukin-2.
6. **(Withdrawn)** The method of Claim 3, wherein said Th2 cytokine is chosen from one or more of Interleukin-4, Interleukin-5, Interleukin-10, and Interleukin-13.
7. **(Withdrawn)** The method of Claim 3, wherein said increasing the level of said Th2 cell cytokine comprises increasing the level of mRNA encoding said Th2 cytokine.
8. **(Withdrawn)** The method of Claim 7, wherein said mRNA encoding said Th2 cytokine is increased 5 fold.
9. **(Withdrawn)** The method of Claim 3, wherein said reducing of said MEKK1 catalytic activity comprises increasing the level of proliferation of Th2 cells that differentiate from said T cells.

10. **(Withdrawn)** The method of Claim 3, wherein said reducing of said MEKK1 catalytic activity comprises introducing a mutation in the gene encoding MEKK1.

11. **(Withdrawn)** The methods of Claim 3, wherein said T cells comprise thymocyte cells.

12. **(Withdrawn)** The methods of Claim 3, wherein said T cells comprise splenocyte cells.

13. **(Withdrawn)** The methods of Claim 3, wherein said T cells are *in vitro*.

14. **(Withdrawn)** The methods of Claim 13, wherein said T cells are *in vivo* in an animal.

15. **(Withdrawn)** The methods of Claim 14, wherein said animal is human.

16. **(Withdrawn)** The method of Claim 15, wherein said human is chosen from one or more of a human that is:

- (a) suspected of having a Th1-mediated disease;
- (b) not suspected of having a Th1-mediated disease;
- (c) suspected of being capable of developing a Th1-mediated disease; and
- (d) suspected of not being capable of developing a Th1-mediated disease.

17. **(Withdrawn)** The methods of Claim 16, wherein said Th1-mediated disease is chosen from multiple sclerosis, type 1 diabetes, autoimmune thyroiditis, and rheumatoid arthritis.

18-19. **(Canceled)**.

20. **(Original)** A method for increasing Th2 cytokine levels produced by T cells, comprising:

- (a) providing:

- (i) an inhibitor of ITCH;
 - (ii) T cells; and
 - (iii) test agent; and
- (b) contacting said T cells in the presence of said test agent to produce contacted T cells and in the absence of said test agent to produce control T cells; and
- (c) detecting reduced activity of ITCH in said contacted T cells compared to ITCH in said control T cells, wherein said detecting identifies said test agent as increasing Th2 cytokine levels produced by T cells.

21. **(Withdrawn)** A method for increasing Th2 cytokine levels produced by T cells, comprising:

- (a) providing:
 - (i) a kinase inhibitor, wherein said kinase is one or more of MEKK1 and JNK1;
 - (ii) T cells;
 - (iii) test agent; and
- (b) contacting said T cells in the presence of said test agent to produce contacted T cells and in the absence of said test agent to produce control T cells; and
- (c) detecting reduced activity of said kinase in said contacted T cells compared to said kinase in said control T cells, wherein said detecting identifies said test agent as increasing Th2 cytokine levels produced by T cells.

22. **(Previously amended)** The method of Claim 20, further comprising, (d) identifying said test agent as increasing the level of a Th2 cytokine.

23. **(Previously amended)** The method of Claim 22, wherein said Th2 cytokine is one or more of Interleukin-4, Interleukin-5, Interleukin-10, and Interleukin-13.

24. **(Previously amended)** The method of Claim 20, further comprising, (d) identifying said test agent as decreasing the level of a Th1 cytokine.

25. **(Withdrawn)** The method of Claim 21, wherein said kinase inhibitor comprises SB600125.

26-63. **(Canceled)**.

64. **(Withdrawn)** The method of Claim 21, further comprising, (d) identifying said test agent as increasing the level of a Th2 cytokine.

65. **(Withdrawn)** The method of Claim 64, wherein said Th2 cytokine is one or more of Interleukin-4, Interleukin-5, Interleukin-10, and Interleukin-13.

66. **(Withdrawn)** The method of Claim 21, further comprising, (d) identifying said test agent as decreasing the level of a Th1 cytokine.